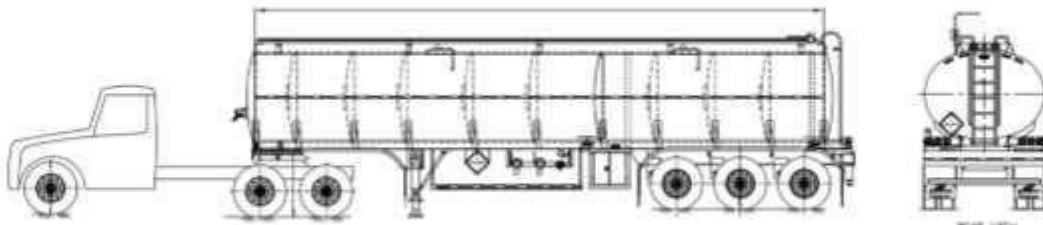


**Thank You for Ordering the TRAM Safety System**



**For Any And All Installation Questions Call Our  
Installation Hotline: 773-295-1180**

**Take Pictures of Your Install (During & Completed Install)  
To Win A \$100 Visa Gift Card! (one card per order)**

Email Photos to [Info@Standfastusa.com](mailto:Info@Standfastusa.com) with your contact  
information & order number reference to win!

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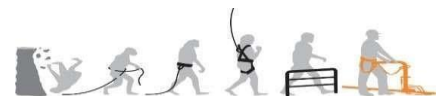
# TRAM INSTALLATION GUIDE

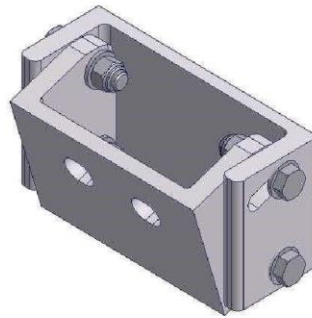
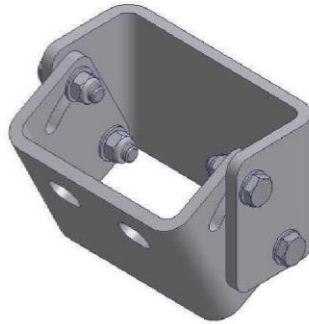
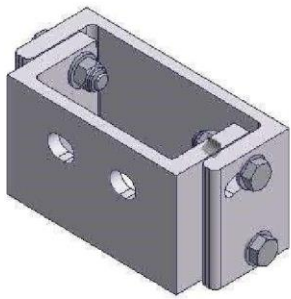
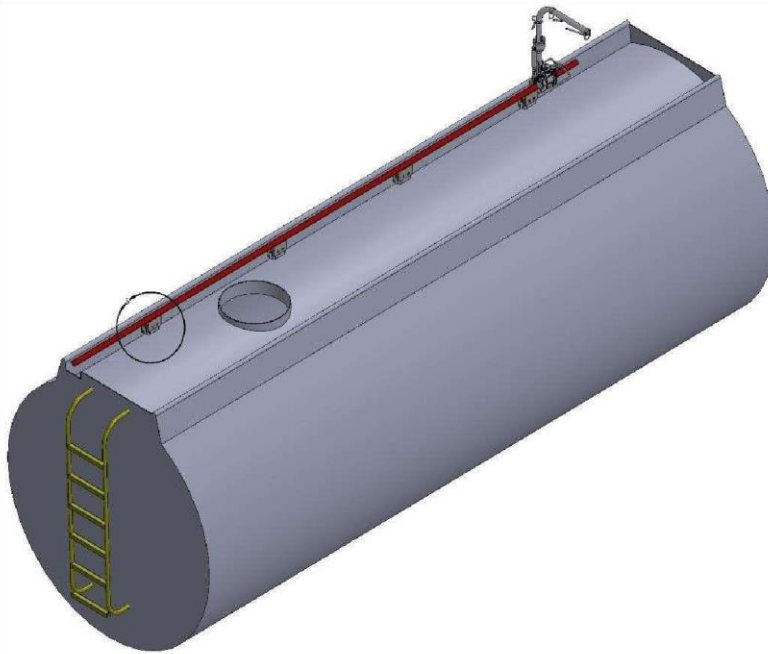
## ADJUSTABLE MOUNT BLOCKS, welded

TR-30-37 Adjustable Aluminum Mount Block

TR-30-40 Adjustable Stainless Steel Mount Block

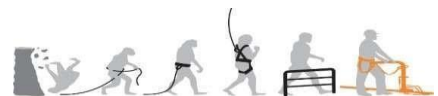
TR-30-41 Large Angle Adjustable Aluminum Mount Block



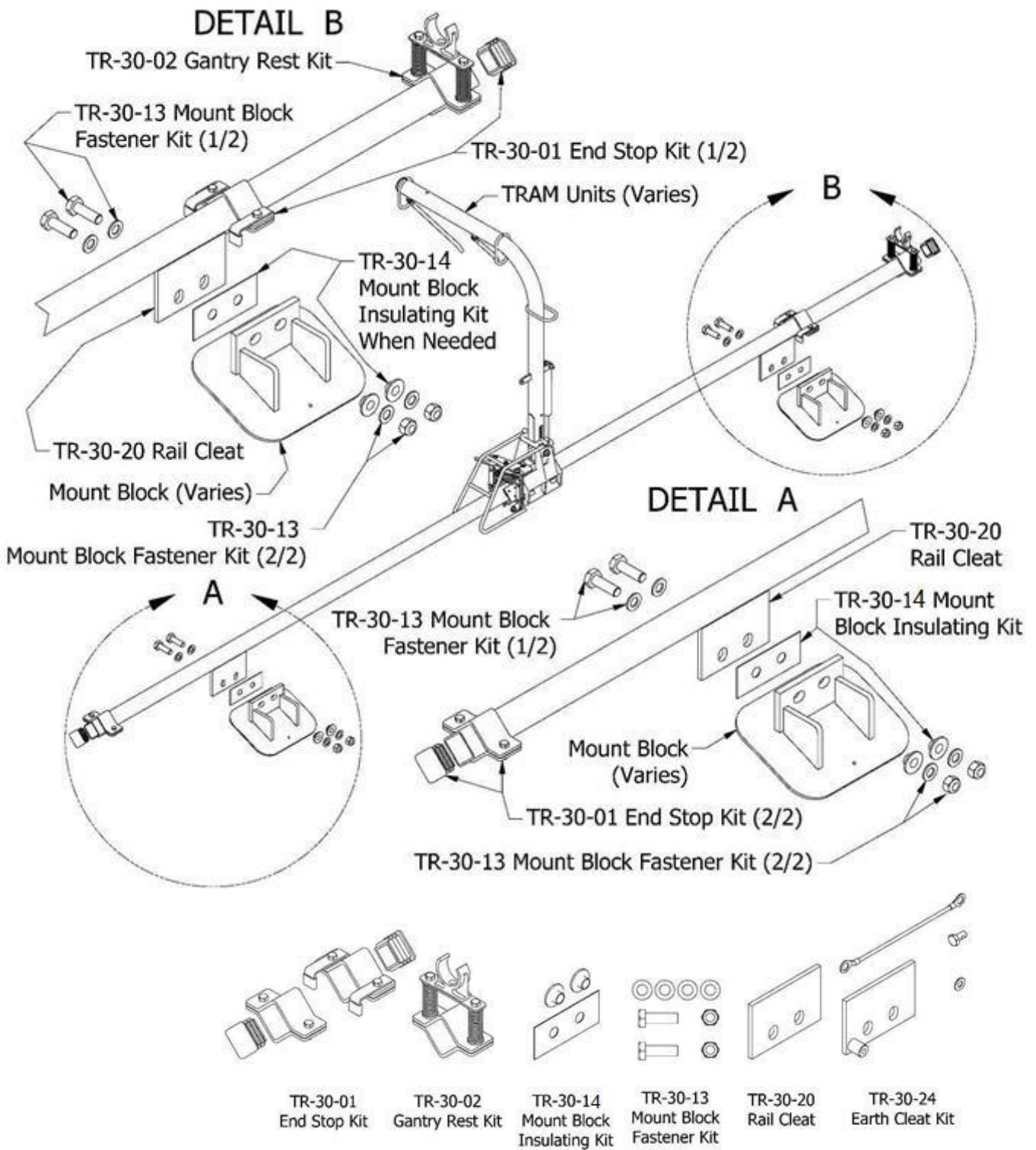


## DESCRIPTION OF EQUIPMENT

Below is an overview of a typical TRAM System, your system may vary.

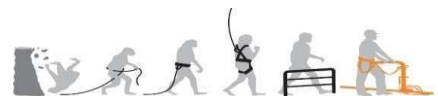


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**TRAM Mount Blocks**

TRAM Mount Blocks are directly attached to the supporting platform by welding or bolting depending on the application. In most cases, especially if welding is involved, the mount blocks are constructed of the same material as the supporting platform. Mount Blocks are available in numerous styles and material combinations. **TRAM Rail Weldment** The TRAM



Unit slides along a 2"x2" or 50x50mm grade 304 stainless steel square tubing that is referred to as the TRAM Rail. **The rail is supported by stainless steel Rail Cleats which are welded to the rail at 8 foot (2400mm) centers or less!**

**IMPORTANT!** When the mount blocks used to attach the TRAM System to the supporting platform are aluminum, material separation gaskets (TR-30-14 INSULATION KIT) are required. When these gaskets are used, one Earth Cleat Kit per rail is required to ground the system and replaces 1 of the standard cleats. Earth Cleat Kits come in the same size as a cleat specified for a particular installation. **Mount Blocks Installation**

Install Mount Blocks where determined during assessment using the installation method appropriate to the Mount Block. Ensure that Mount Block can withstand the loads specified in the TRAM Loading Specifications.

#### **TRAM Rail Dry Fitment**

Install TRAM Rail assembly without any permanent attachments. Verify all cleat locations match Mount Block locations and all clearances are maintained. Mark and perform any rail modifications needed prior to Rail Weldment Fabrication.

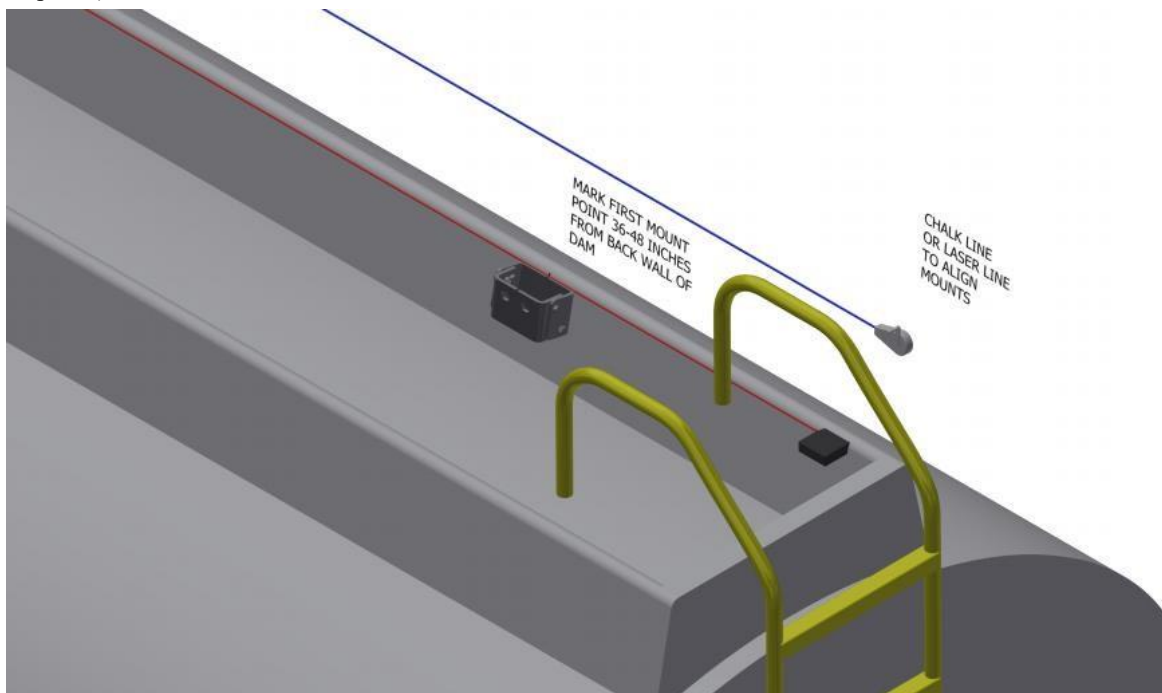
#### **TRAM Rail Weldment Fabrication**

If required, weld sections of TRAM Rail together. Weld Rail Cleats, and Earth Cleat if required, to TRAM Rail at spacing determined during assessment and corresponding with either pre-slotted locations or Mount Block placements. Maintain proper angle between rail center line and cleat face.

Always use a TR-30-90 Rail Joiner when welding multiple rail sections.

#### **TRAM Unit Fit Up**

Bolt TRAM Rail Weldment to Mount Blocks, install TRAM Unit on TRAM Rail, install End Stop Kit and Ground Cable (if required).

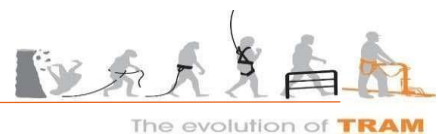


### **STEP 1 – Mount Block Selection**

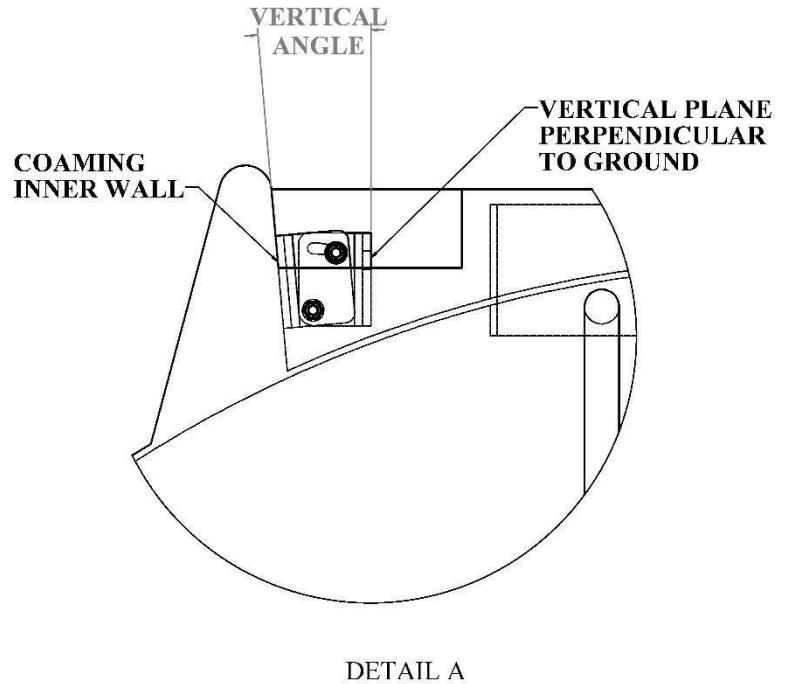
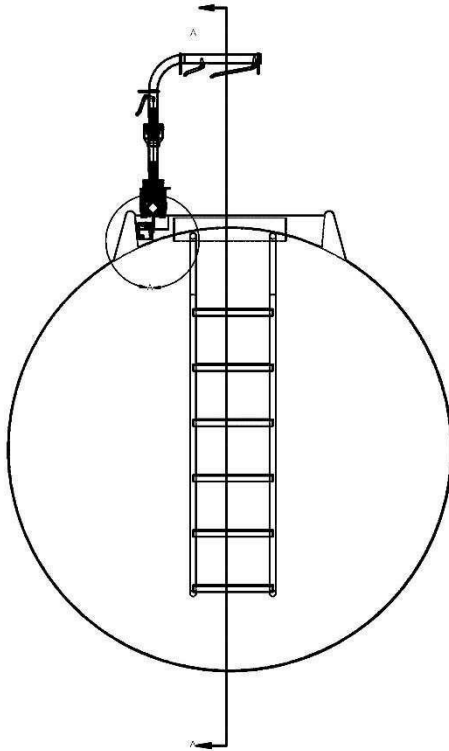
**IMPORTANT!** When installing adjustable coaming mount blocks, it is important to determine proper vertical angle of the mounting surface.

Determine the vertical angle if the required mounts:

- Using a square and an angle finder measure the opening between a vertical plane of the installation and a surface to which mount blocks will be attached.



- Follow figures below.



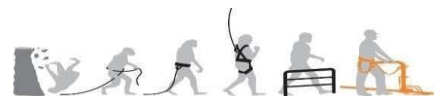
- FOLLOWING ADJUSTABLE MOUNT MODELS ARE AVAILABLE BASED ON ANGLE OPENING:
- **ALUMINUM**
  - -5° TO 50° TR-30-50 ADJUSTABLE ALUMINUM MOUNT BLOCK
  -
- **STAINLESS STEEL**
  - 0° TO 39° TR-30-40 STAINLESS STEEL ADJUSTABLE MOUNT BLOCKS

## STEP 2 – Mount Block Installation

Perform a temporary installation of mount blocks to verify design accuracy and determine proper placement.

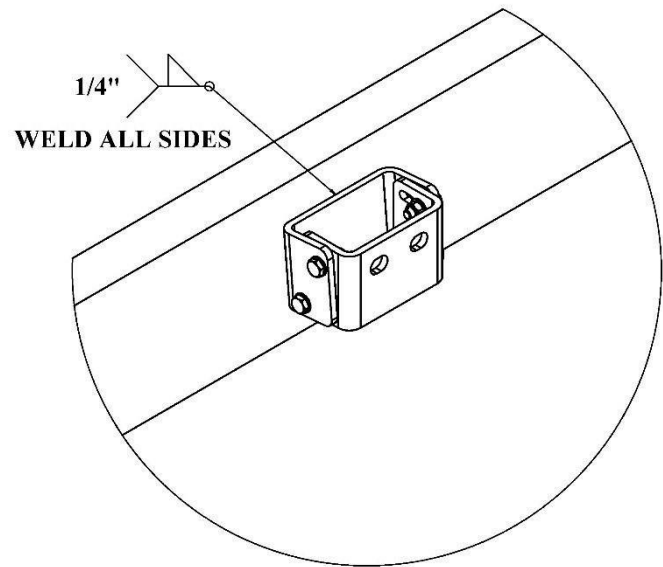
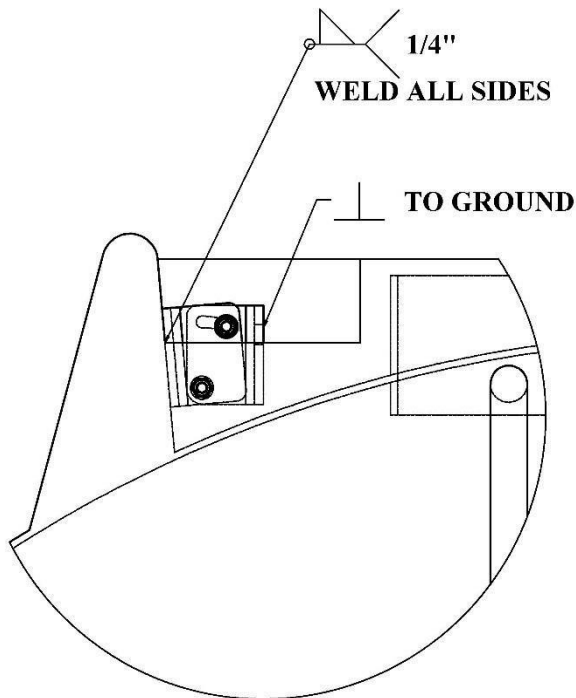
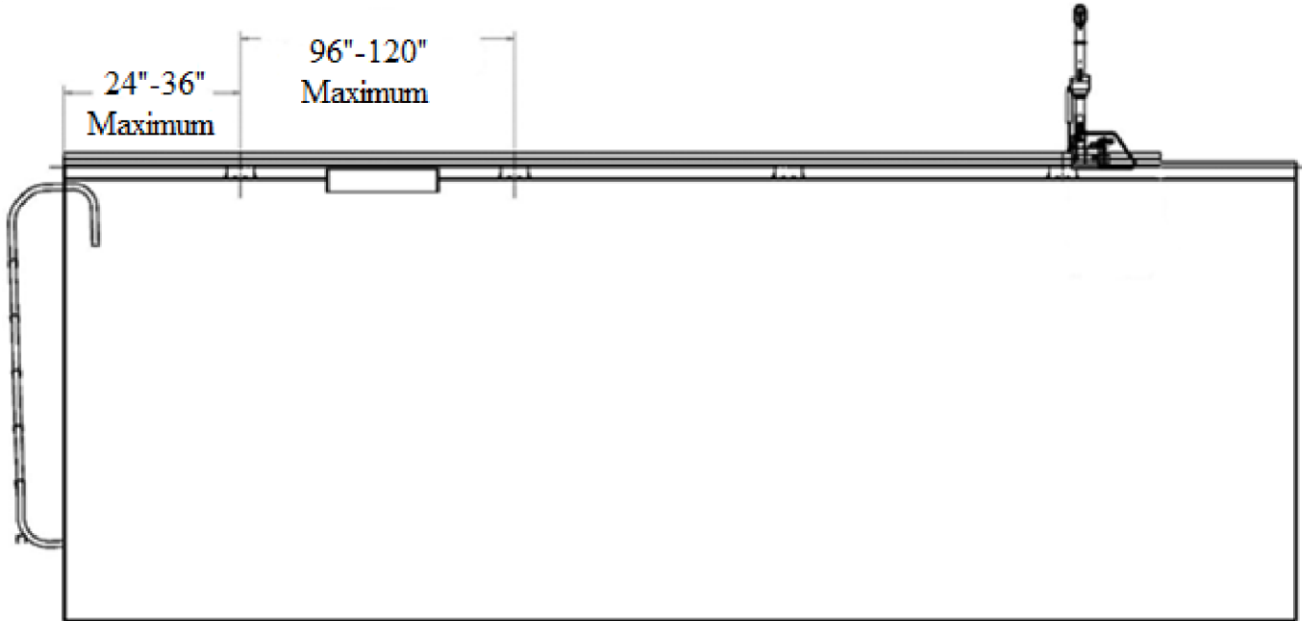
When locating mount blocks follow these steps:

- Determine the vertical plane of the mount blocks. To ensure appropriate clearance the horizontal center line of the mount block must be no more than 1.75” below the top level of any obstructions (See figure above (STEP 1) and below).

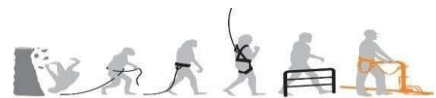


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- Space the mount blocks at maximum center distances of 120", adhering to the specifications shown in the diagrams above (STEP 1). If you are installing an engineered system, follow mount block spacing provided in the documentation drawings.
- Once the correct placement of the mount blocks is verified, attach the mount blocks using the method appropriate for the mount block being used (If in doubt, ask! Same mount blocks may have multiple installation options).
- It may be necessary to dry fit mount blocks with the entire TRAM system prior to any permanent attachments are made.



### STEP 3 – TRAM Rail Dry Fitment



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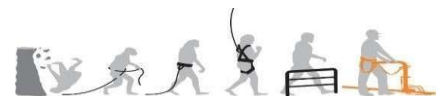
Perform a temporary installation of rail assembly, to verify design accuracy and determine proper placement. It is helpful to use temporary fasteners between mount blocks and rail system at this time.

- While performing the dry fitment, no welding is necessary, however dry fitment process will result in correct placement and ultimately will become the final placement and location of the TRAM system. If mount blocks were properly spaced and clearance is maintained, block mount welding prior to rail welding is recommended (You can perform this by following block mount welding procedure from next step). Correct installation may require multiple dry fitments!
- Install rail cleats with temporary means to the previously fitted mount blocks. Insert rail joiners between rail lengths to verify overall length and clearances. Mark extended welds or rails that might need to be corrected for a good fit.
- When installing continuous rail lengths, it is necessary to clamp rails together with C clamps and flat bars. Flat bars should be no less than 10” and no more than 12” long. Flat bars should be 1.5” to 1.75” wide and at least ¼” thick to allow the joint inspection.
- At this time, determine the location of the end stop kit and mark excess rail for cutting. Cut off excess rail lengths prior to any welding is performed to ease rail handling.
- If you are installing an engineered system, follow cleat and joiner location schedule provided in the documentation drawings.
- Once the correct placement of the rail system is verified, perform rail corrections (if necessary) for precise installation, including edge chamfering. Grind a chamfer at the ends of each rail to prepare the rail for welding.
- Reassemble rail to dry fit position after rail corrections and chamfering is completed. Verify Fit!

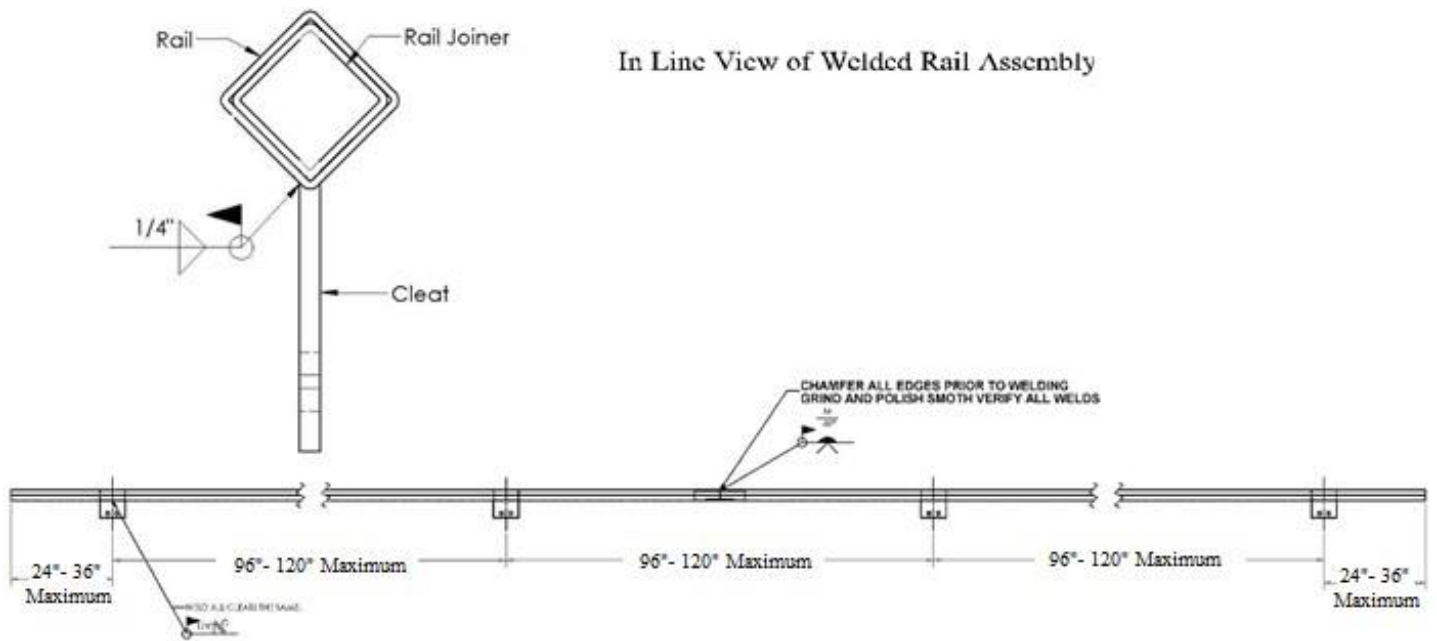
## STEP 4 – TRAM Rail Weldment Fabrication

Once Dry Fit is performed and verified, proceed with Weldment Fabrication.

- Weld all mount blocks to surface after performing Steps 1 and 2. This will ensure no free movement in the rail assembly. Follow all Safety Notices!
- Mark the cleat locations from dry fitment.
- Weld the cleats to the rail, using a continuous ¼” fillet weld on all sides. Correct alignment of the cleats with the rail is important. It is helpful to use jigs or fixtures during welding.
- Complete the welding procedure while following SWPS.
- Once the rail has adequately cooled, proceed with weld grinding and smoothing to bring all sections to a uniform dimension.
- Place the TRAM onto the TRAM rail. Test for free movement of the TRAM along the rail, particularly near weld joints.







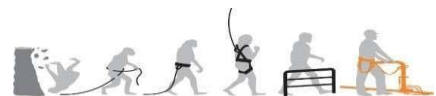
## Step 5 – Fitting

### PROPERLY FASTEN TRAM RAIL TO MOUNT BLOCKS

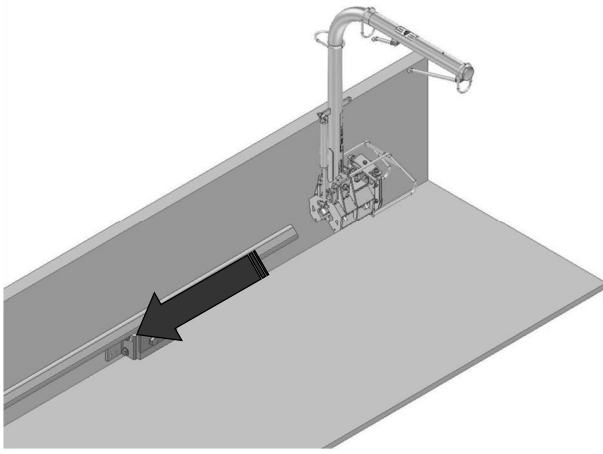
- If TRAM Rail was fitted to the mount blocks with temporary fasteners for dry fitment, replace all mounting hardware with fasteners supplied in the mount block kit.

Fasten the TRAM Rail to the mounting blocks using the fasteners and the procedure provided with the mount block kit.

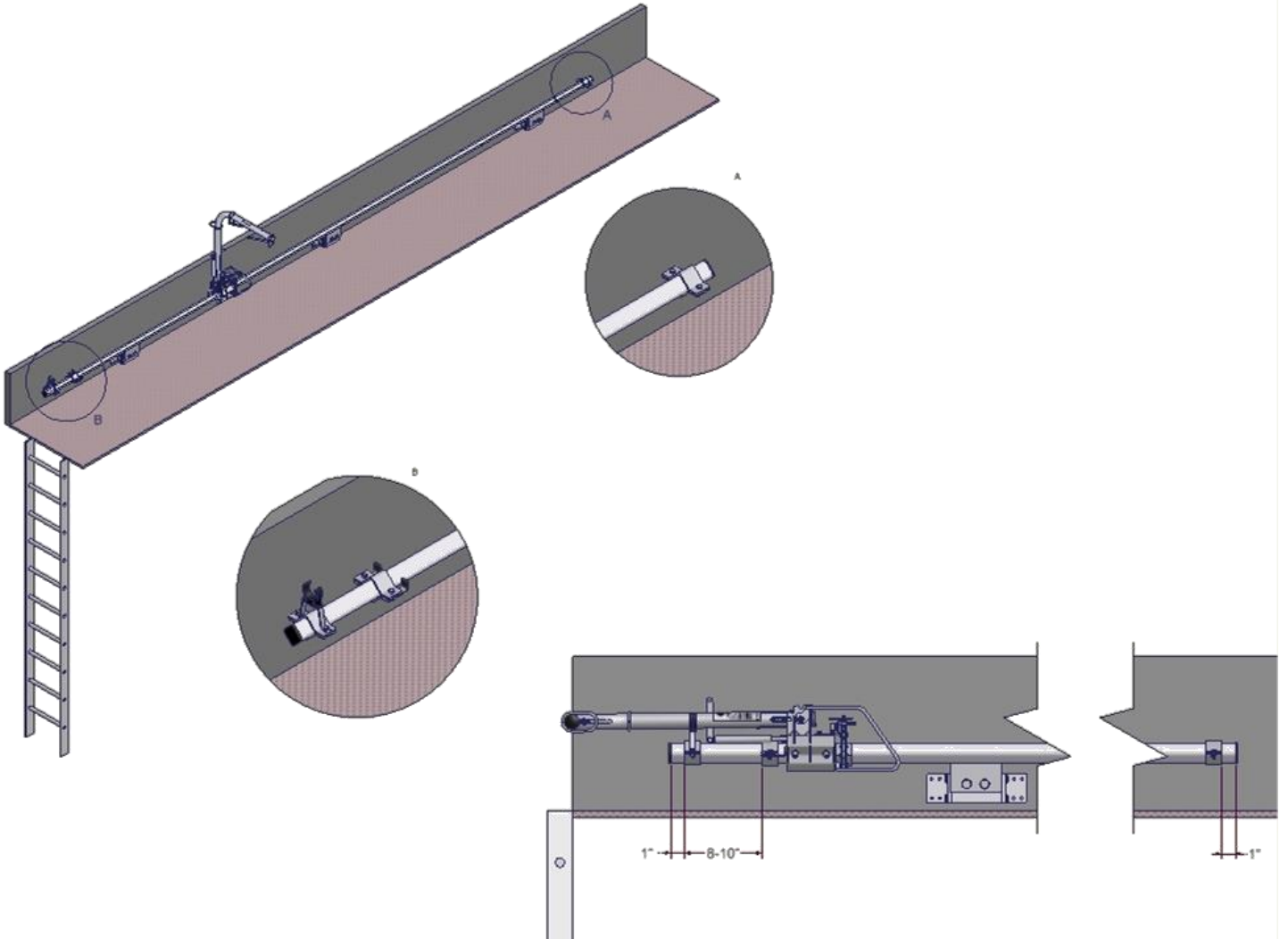
- FASTENING BOND STRAP (WHERE REQUIRED)
  - Where necessary, install the equipotential bond strap using the procedure and components provided with the equipotential bond strap kit.
- FIT TRAM TO RAIL
- Depress the TRAM brake lever and slide the TRAM onto the TRAM Rail as depicted below.
- It is easier to install the TRAM from the end of the rail (Shown Below) as breaks will not interfere during initial sliding of the TRAM onto the rail.



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- **FIT ENDSTOP KIT & GANTRY REST KIT**



- You will want to install the gantry rest in area where when the TRAM arm is stored at 0 degrees (seen in photo above) the TRAM arm is hanging above the ladder to act as an extra rung to grab onto. Once this location has been determined fasten gantry rest onto the rail. Next you'll install the first end stop kit which should be located directly behind the TRAM trolley (5-10") this will stop the TRAM in the same location every time allowing the user to effortlessly climb down the ladder from the work area. Fasten down this end stop. Take the 2nd end stop and locate it at the far end of the rail and fasten it down. Your equipment is now TRAM Safe.

